

Biomimetics: learning from nature to make better sensor systems

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Nature has been the inspiration in art for centuries. In the 19th Century there were a number of attempts to copy nature and apply the ideas to engineering. Unfortunately, this was often done without understanding the details of operation of the natural systems. In some cases engineering successes were based on natural systems without the inventor realising. In more recent years there has been a more detailed investigation of natural systems with the aim to learn from them and build improved sensors. Once again it is important to learn about the mechanisms and not try to copy directly. This paper will discuss a number of natural systems and how they can be implemented in both sensors and actuators.